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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,332	01/02/2004	Asmus Hetzel	CDN.P0094	7610
48947	7590	07/17/2006		
STATTLER, JOHANSEN, AND ADELI LLP 1875 CENTURY PARK EAST SUITE 1360 CENTURY CITY, CA 90067			EXAMINER DIMYAN, MAGID Y	
			ART UNIT 2825	PAPER NUMBER

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/751,332

Applicant(s)

HETZEL ET AL.

Examiner

Magid Y. Dimyan

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. This is with regards to the Response to the Office Action, filed 09 June 2006. It is acknowledged that Applicants have elected Group II (claims 21 – 46) without traverse for prosecution, in response to the Restriction Requirements under 35 U.S.C. §121. Applicants have cancelled claims 1 - 20, and have not added any new claims. Thus, claims 21 – 46 are pending in this Application.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 22, 24 – 33, 35 and 37 – 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 22, 24 – 26, 35 and 37 - 39 (line 2) recite the limitations “the item” or “the item’s bloated region”. There is insufficient antecedent basis for these limitations in the claims.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**6. Claims 21 – 27, 31, 33 – 40, 44 and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 7,065,729 B1 to Chapman.**

7. Pursuant to claims 21 and 34, Chapman discloses a method (claim 21) and a computer readable medium that stores a computer program (claim 34 – see Fig. 27; col. 33, line 59 – col. 34, line 35) for defining a route for a net in a design layout that has multiple routing layers (see col. 8, ll. 9 – 37), wherein the route has a plurality of segments, wherein a set of at least two routing directions are available for routes on a particular layer (see Figs. 5B, 7, 13A and 13B; Abstract, col. 4, ll. 43 – 53) that includes: (a) for each of at least two available routing directions on a particular layer, defining an unroutable bloated region about a previously defined geometry on a particular layer, wherein the bloated region for at least two different routing directions are different (see Abstract; col. 4, ll. 33 – 53; col. 7, ll. 13 – 20; Figs. 6A and 6B); and (b) defining the route for the net by using at least one bloated region for a particular routing direction to determine the portion of the particular layer that is not available for route segments along the particular routing direction (see again Abstract; col. 12, line 13 – col. 13, line 22; col. 13, line 55 – col. 14, line 11). Thus, Chapman clearly teaches all the claimed limitations.

8. As per claims 22 – 27, see (6) above; Figs. 4A and 10B; col. 8, line 64 – col. 9, line 4; col. 10, ll. 3 – 24; col. 11, ll. 24 – 30, which teach all the claimed elements pertaining to design rule checking (i.e., routing widths and minimum spacing requirements).

9. Regarding claims 31 and 33, see (6) and (7) above; Fig. 24; col. 22, ll. 3 – 24; col. 31, line 64 – col. 32, line 17, which teach the claimed limitations pertaining to using an analytical approach to identify bloated regions (claim 31) and checking the viability of an expansion along a particular routing direction (claim 33).

10. Claims 35 – 40, 44 and 46 contain the same limitations found in claims 22 – 27, 31 and 35, respectively, and therefore the same rejections also apply.

### ***Allowable Subject Matter***

11. Claims 28 – 30, 32, 41 – 43 and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, as well as rewritten to overcome the 35 U.S.C. 112 2<sup>nd</sup> paragraph rejections set forth in this Office Action.

12. The following is a statement of reasons for the indication of allowable subject matter: prior art does not teach the additional claimed limitations pertaining to the definition of bloated regions by identifying locations that would result in routes being closer to a geometry than the required minimum spacings for that direction.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magid Y. Dimyan whose telephone number is (571) 272-1889. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on (571) 272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Magid Y Dimyan  
Examiner  
Art Unit 2825

myd  
12 July 2006

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PAUL DINH  
PRIMARY EXAMINER

Paul Dinh